

# CHAPTER 17: FIRE AND EMERGENCY SERVICES

The mission of the City's Fire Department is to serve and protect our community through education, prevention, preparedness and response. The service area covers over 380 square miles and over 618,600 people. The Fire Department five-year vision is to become a nationally accredited fire service organization.

## EXISTING CONDITIONS AND TRENDS

The Fire Department provides fire suppression and rescue, first responder emergency medical services, hazardous materials emergency mitigation, emergency and disaster management, fire code enforcement, fire safety education, and explosive containment and disposal as detailed in the Fire Department business plan.

### Fire Services

The Fire Department is divided into five divisions: (1) Administrative Services (2) Operations, (3) Educational and Support Services, (4) Executive and Educational Services, and (5) Emergency Management.

The Fort Worth Fire Department has an Insurance Service Office (ISO) Public Protection Classification (PPC) of three (3). A fire department's PPC is assigned by the ISO based on a number of factors, including: training, staffing, number of fire stations, equipment dispatched to fires, equipment on trucks, fire prevention, investigation, fire safety education, construction code enforcement, hydrant maintenance, water supply, and the 911 center's ability to answer and dispatch calls. PPCs help determine the insurance rates for homeowners within a city. A lower rating generally results in savings to homeowners in the city. The Fire Department was last rated in 2000, resulting in an improvement over the previous rating in 1990.

To strive for the best possible rating, the Fire Department is constantly vigilant of new residential and commercial development. With growth and annexation comes the need for new fire stations located strategically in newly developed areas. Managing the necessary expansion of fire services is currently the Department's greatest challenge. Fire Station No. 38 in the Alliance Corridor, for which funding was approved in the 1998 Capital Improvements Program is projected to be constructed and go into service by FY2005-06 Fire Station No. 8, at West Rosedale and 5<sup>th</sup> Avenue, is being relocated to property at 12<sup>th</sup> and Rosedale due to the widening of West Rosedale Street. Construction is underway and expected to be finished in December 2005. Planning is also underway for two new stations north of the I-820 loop, with their anticipated completion date being 2007.

Staffing and deployment of fire fighting equipment and trucks with the appropriate number of firefighters will continue to be a demanding and expensive challenge, particularly as the City continues to grow geographically. Future annexations will challenge the Fire Department to provide fire/rescue and emergency medical services as stated in the Department's business plan. National and state fire standards, such as

## Insurance Service Organization (ISO) Rating of the Ten Largest Cities in Texas, 2005

City	2005 Population Estimate	ISO Rating
Houston	2,060,444	1
San Antonio	1,282,800	3
Dallas	1,232,100	2
Austin	700,407	2
Fort Worth	618,600	3
El Paso	614,261	1
Arlington	355,500	3
Corpus Christi	281,000	4
Plano	247,000	1
Garland	221,950	2

The Fort Worth Fire Department's ISO rating improved from 4 to 3 in 2000. (Source: 2005 Fire Department Survey.)

ISO, recommended staffing levels in order to achieve certain ratings and standards of safety. Staffing levels of the Fort Worth Fire Department may be affected by these standards. In April 2005, the Department completed its upgrade from three-person to four person staffing on every apparatus, a change designed to improve effectiveness and safety at fires and other incidents.

Although the addition of these personnel is an important accomplishment, it is also important to support the expanding fire fighting force and the growing city with technical and logistical personnel and resources. There will be a need for additional staff, including instructors, public educators, inspectors, fire investigators, mechanics, battalion technicians, and data analysts. The continuing expansion of the workforce will also require additional supervision in the form of the creation of an additional battalion (which would raise the total to seven). Finally, fire stations will need to be modernized to accommodate a diversified workforce, and new ones will be needed to accommodate the City's growth and also to replace aging stations.

The Fire Department plays an important role in Emergency Medical Service (EMS), working with the Area Metropolitan Ambulance Authority to provide first-responder emergency medical response services. All firefighters are trained, State-certified emergency medical technicians. All fire trucks carry automatic external defibrillators (AEDs) and other state of the art EMS equipment and supplies to stabilize patients until advanced life support (ALS) personnel and equipment arrives.

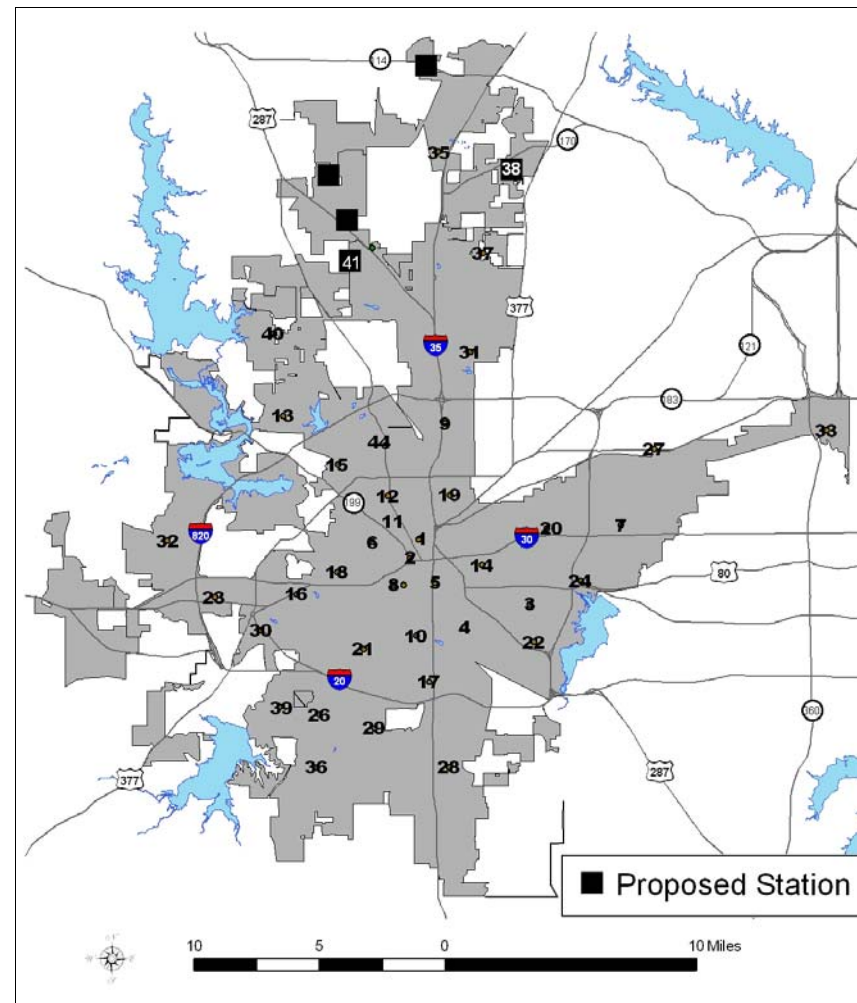
Other emergency services provided by the Fire Department include a Water Emergency Response Team that is equipped and trained to handle surface rescues, swift water rescues, and underwater search and recovery; Aircraft Rescue and Fire Fighting (AARF) responsibilities for the City's three municipal airports; and a Hazardous Materials Team (HazMat) that is trained and equipped to respond to the spill, or leak, of dangerous chemical, radiological, or biological products. The Department also has a Technical Rescue Team (TRT) that is trained and equipped to deal with large transportation accidents (train, bus, aircraft), structurally collapsed buildings, rope rescue for aboveground emergencies, confined space rescues, and cave-in or trench rescues.

Response time to an incident (dispatch to on-scene) is one of the Department's primary measures of effectiveness. The current goal for emergency calls is five minutes, 75 percent of the time. As the chart on page 170 shows, the Department typically struggles to reach this goal across the entire City. As station construction is unable to keep pace with growth on the edges of the City, this trend is likely to continue.

### **Emergency Management**

The Emergency Management Office (EMO) was established to develop plans and procedures to preserve life and property during disasters for the citizens of Fort Worth and Tarrant County. EMO strives to keep Fort Worth and Tarrant County

**Fort Worth Existing and Proposed Fire Stations**



The City of Fort Worth has 39 fire stations within its city limits. This map shows all current stations, as well as the construction site for Station 38, the relocation site of Station 8, and three proposed station sites. Two of those – are fully funded in the 2004 CIP, while only the land purchase is funded for the third. (Source: Fire Department, 2004.)

prepared for all types of disasters, both technical and natural. Partial funding for this office is provided by a matching grant from the Federal Emergency Management Agency (FEMA).

Emergency Management focuses on increasing the capacity of organizations to plan for, respond to, and coordinate emergency activities. Emergency Management is tasked with maintaining a warning system for disasters. This warning system includes an aggressive public education campaign and testing of the siren system. Additionally, the EMO activates the Emergency Operations Center and/or the Emergency Management Plan as deemed necessary. Several other City departments take an active role in the Emergency Preparedness Program, offering expertise and facilities, as needed.

## GOALS AND OBJECTIVES

### Administration:

- Provide accurate and timely financial support to the department and external customers.
- Provide effective and timely technical support to the department.
- Provide accurate and timely information to the department and external parties.

### Operations:

- Respond to and mitigate emergency and service calls in a timely and competent manner with adequate resources.
- Provide for a highly trained workforce that is adequately furnished with well-maintained equipment and facilities.
- Provide accurate information to the appropriate audience in a timely manner.

### Educational Services:

- Recruit a qualified workforce that reflects the diversity of the City.
- Develop a competent workforce through education and training.
- Provide effective medical training to the public and fire personnel.

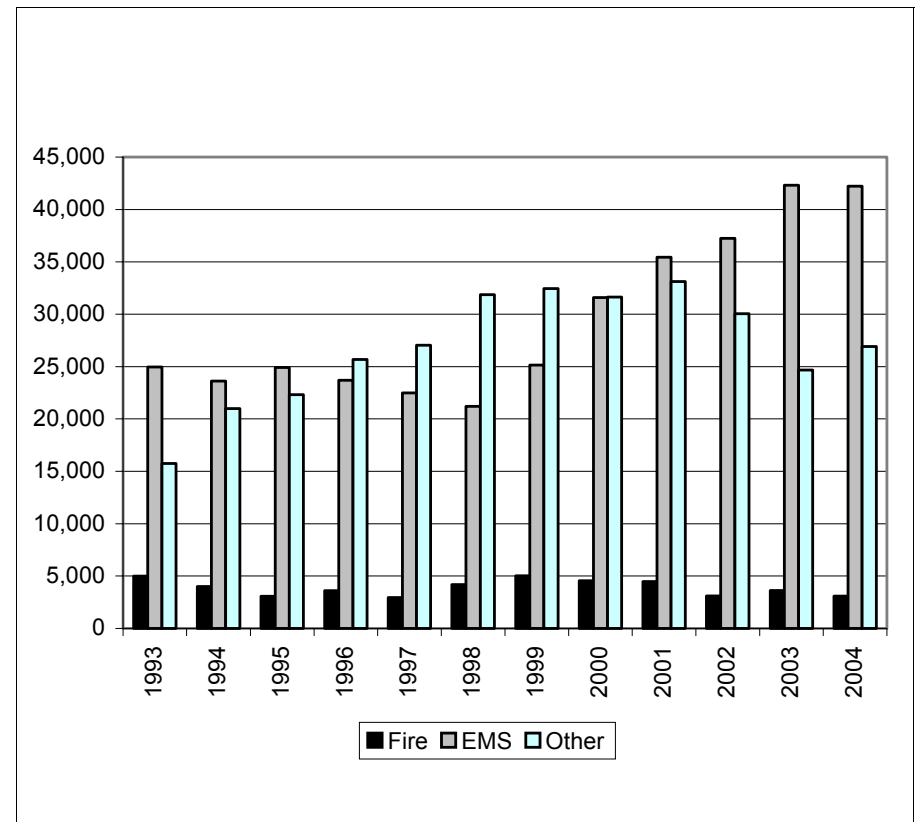
### EMO

- Facilitate educational activities to produce a greater understanding of emergency preparedness amongst governmental agencies and the public.
- Coordinate an integrated emergency management system with internal and external agents in a timely manner.
- Facilitate a cohesive and effective community planning process.
- Effectively and efficiently develop and administer programs that support an integrated emergency management system.

### Executive and Educational Services

- Dispatch appropriate resources and respond to needs of on-scene personnel in a timely manner.

**Fort Worth Fire Department  
Total Runs by Type, 1993-2004**



In 2004, the Fire Department responded to 3,075 fires and 42,213 Emergency Medical Service (EMS) calls. The Fire Department also responded to 26,913 other emergencies. (Source: Fire Department, 2005.)

- Efficiently procure leading-edge communication equipment and keep it well maintained and well-organized.
- Provide professional, timely and thorough inspections and plan review.
- Thoroughly investigate the cause of all fires of unknown origin and accurately identify incendiary fires and their perpetrators.
- Completely, accurately, and impartially investigate complaints involving Fort Worth Fire Department members.
- Prevent or mitigate the destructive effects of explosives and explosive devices.
- Effectively educate the public in fire and life safety strategy and skills.

## POLICIES AND STRATEGIES

### Fire Department Strategies

- Increase the number of minority and female applicants through an aggressive recruiting program.
- Enhance our relationship with Tarrant County College in order to improve recruit training and professional development for personnel.
- Attempt to increase public participation in education programs such as Learn Not to Burn, Youth Fire Academy, and the Citizens Fire Academy.
- Educate the public on appropriate reactions to bombs and bomb threats through lectures and presentations.
- Improve EMS service delivery by expanding and promoting the Public Access Defibrillator Program.
- Apply for FEMA and other grants in order to expand and improve the Department's Public Safety programs, and supplement other Department initiatives.
- Look to improve internal and external communication through focus groups, meetings, replacing paper based processes with electronic ones, etc.
- Strengthen sprinkler and fire alarm requirements in the Fire Code for new and existing construction.

### Emergency Management Strategies

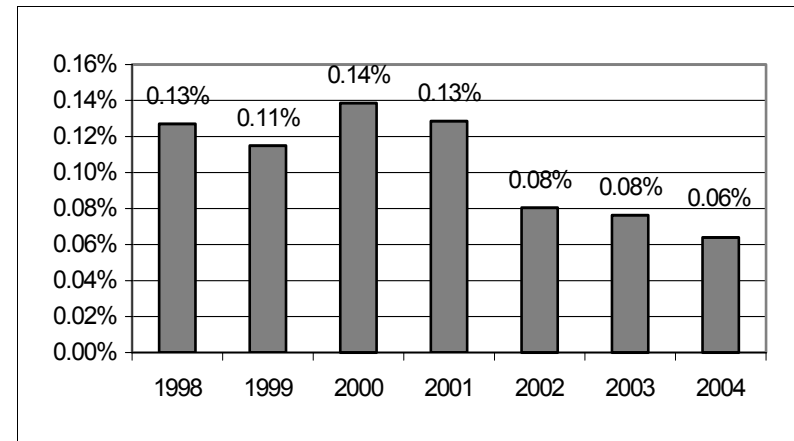
- Provide weapons of mass destruction (WMD) and Chemical Biological Radiological Nuclear and Explosive (CBRNE) training and exercises to prepare local organizations, for emergency and disaster situation response and recovery.
- Implement National Incident Management System (NIMS).
- Coordinate the expenditure of Homeland Security grant funds for the training and equipment necessary to combat and respond to CBRNE and WMD terrorism events.

## PROGRAMS AND PROJECTS

### Fire Department Programs

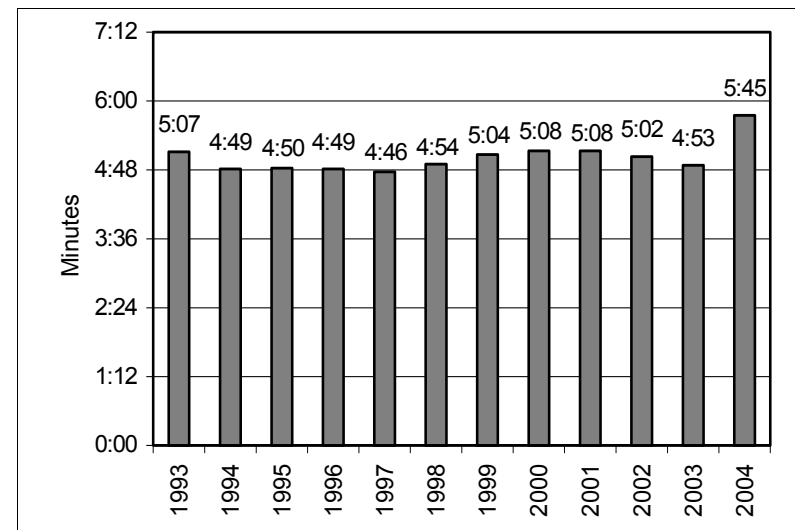
- **Learn Not to Burn®** is a program designed to provide instructions in fire safety behavior to elementary school students. This program has proven to be

**Fire Loss as Percentage of Total City Property Value, 1997-2004**



Property losses due to fires have decreased from peak years in 2000 and 2001 (Constant 2000 dollars). (Source: Fire Department, 2005.)

**Fort Worth Fire Department Average Response Time 1993-2004**



Average response times were above the goal of five minutes for six of the past twelve years. (Source: Fire Department, 2005.)



one of the most effective ever used by the community and Fort Worth schools. It is a structured curriculum taught by firefighters and reinforced by other resources, such as clowns, puppets, the Fire Safety House, and fire truck visits. This program is designed for children pre-kindergarten through the fifth grade.

- **Youth Fire Academy** is a new program used to reach youth grades 8th - 12th with informative information concerning the services offered by the Fire Department. This is a one-week version of the Citizen's Fire Academy and is designed to recruit new volunteers and expose youth to a possible career as a Fort Worth firefighter.
- **The Citizen's Fire Academy** program teaches up to 60 citizens annually about Department activities, fire safety, CPR, and first aid techniques. This education also enables graduates to assist the Department with fire safety training and other special projects.
- **Fight Fire With Care Program** is designed to help families with children who are involved in fire play or fire setting. Approximately 50-100 children are referred to the program each year. More than 90% of program graduates never relapse into firesetting behavior. The FWFD program is part of the Tarrant County Juvenile Firesetter Coalition, which is comprised of all municipal and county entities that have programs, and all their referral sources. In addition, the Department partners with several private charitable entities to make sure that juveniles in the program receive counseling and other services.
- **High School CPR Training** is provided by the Fort Worth Fire Department in partnership with the Area Metropolitan Ambulance Authority, the Fort Worth Independent School District (FWISD), and the American Heart Association. The object is to provide CPR training to every high school sophomore in the FWISD. Five thousand high school students are trained every year by high school teachers, nurses, and Fort Worth firefighters through this collaboration.
- **Fire Safety Inspections** of the nearly 15,000 commercial businesses and approximately 900 target hazards are completed by fire company inspectors.
- **Underground Gasoline Storage Tanks Inspections** ensure compliance with the Environmental Protection Agency (EPA) laws and regulations that provide for public safety and environmental protection.
- **Inspection and Review of Construction Plans and New Structures** involves several functions, including review for fire code compliance, inspection of fire protection systems such as sprinklers and alarms, and addressing. Ensuring compliance with all codes and regulations has a tremendous impact in reducing the number and severity of future fires.
- **Standpipe System Inspection** is provided by an inspector who examines and tests fire department emergency delivery systems. The dependability of these systems is crucial to both public and firefighter safety.

#### **Emergency Management Programs**

- **Early Warning Alert** for all types of disasters is provided through EMO, Weather Spotters Net, and the Medical Operation Center during mass casualty incidents.
- **Association Networks** are continuously built by the Emergency Management

### **Quick and Effective Emergency Response**



Truck 8 on the scene of a three-alarm fire on Hemphill Street caused by a lightning strike in August 2003. (Source: Fire Department,



Fort Worth Firefighters work with MedStar and CareFlight to treat and evacuate a burn victim. (Source: Fire Department, 1999.)

Office with groups, organizations, agencies, and individuals at the local, state, and federal levels. These associations help to establish the resources needed in times of disaster.

- **MMRS** is Federal program coordinated locally by the EMO. This is a program directly supporting local capabilities to manage an all hazards mass casualty incident until significant external resources arrive by systematically enhancing and integrating first responders, medical providers, emergency management, business, and volunteers.
- **UASI** Fort Worth Working Group is a federal program to prepare our community to respond to the threat and the acts of terrorism. Working in close coordination with the Arlington and Dallas UASI Working group as a Metro UASI Working Group, the EMO coordinates the development of regional strategies and priorities to prepare our communities.
- **LEPC** is a federal requirement to prepare first responders, develop emergency plans, and educate the community on the threats of hazardous materials via transportation routes, or fixed facilities. The LEPC is also required to maintain records of hazardous material accidents, and of storage of reportable quantities of hazardous chemicals.

#### **Capital Improvement Projects**

The approval of the 2004 bond program has resulted in the Fire Department obtaining money to construct two new fire stations, buy land for one more, relocate or replace two others, and provide enhancements to existing stations. Placement of these stations is determined based on response time studies that tie into legal requirements for the provision of public safety services to newly annexed areas. Details of all currently funded and unfunded CIP projects can be found in Appendices D and E.

#### **Fort Worth Fire Engines**



The fire engine shown above is typical of the type of pumper that the Fire Department operates in Fort Worth. A fully equipped engine costs \$500,000 and has a 12 to 15 year service life. (Source: Fire Department, 2005.)



The fire truck shown above is another type of vehicle, called a “Quint,” that the department operates. It is so named because of its ability to perform five different functions. It costs \$600,000 and has a 15 to 18 year service life. (Source: Fire Department, 2005.)